

What Is Claimed Is:

1. A lighting system comprising:
a plurality of light sources generating a light;
an optical fiber; and
5 a light coupler optically coupling said light sources to said fiber, said coupler having a body and a plurality of lenslets corresponding to a respective light source, each lenslet directing light through the body to said optical fiber.
- 10 2. A lighting system as recited in claim 1 wherein said body has sides with a predetermined angle with respect to a face of said optical fiber.
3. A lighting system as recited in claim 1 wherein the light sources comprise laser diodes.
- 15 4. A lighting system as recited in claim 1 wherein the light sources comprise a wafer having a plurality of laser cavities.
5. A lighting system as recited in claim 1 wherein each of said plurality of lenslets have a
20 wedge shape.
6. A lighting system as recited in claim 5 wherein said wedge shape has an angle directing light to a face of said optical fiber.
7. A lighting system as recited in claim
25 6 wherein said angle increases as a distance from a center emitter increases.

8. A lighting system as recited in claim 1 wherein said plurality of lenslets collimated light in a first direction.

9. A lighting system as recited in claim 1 wherein said plurality of lenslets have a curved cross section.

10. A coupler for coupling light from a plurality of light emitters to an optical fiber comprising:

10 a monolithic structure having body and a plurality of lenslets corresponding to a respective light emitters, each lenslet directing light through the body to said optical fiber.

11. A coupler as recited in claim 10 wherein said body has sides with a predetermined angle with respect to a face of said optical fiber.

12. A coupler as recited in claim 11 wherein said predetermined angle allows substantially total internal reflection of said light within said body.

13. A coupler as recited in claim 10 wherein each of said lenslets have a wedge shape.

14. A coupler as recited in claim 13 said wedge shape has an angle directing light to a face of said optical fiber.

15. A coupler as recited in claim 14 wherein said angle increases as a distance from a center emitter increases.

16. A coupler as recited in claim 10 wherein each of said plurality of lenslets collimates light in a first direction.

17. A light distribution system for an automotive vehicle comprising:

a plurality of light sources generating a light;

an optical fiber coupled within the vehicle; and

a light coupler having a body with an input surface, an output surface, side surfaces, an upper surface and a lower surface, said input surface having a plurality of lenslets corresponding to a respective light source, said light source optically coupling light into said body through said lenslets, each lenslet directing light through the body to said optical fiber coupled to said output surface.

18. A light distribution system as recited in claim 17 further comprising a controller coupled to the light source controlling the operation of the light source.

19. A light distribution system as recited in claim 18 wherein said controller controls the intensity of the light source.

20. A coupler as recited in claim 17 wherein each of said plurality of lenslets has a wedge shape.

21. A coupler as recited in claim 17 wherein said lenslet collimates light in a first direction substantially parallel to said upper surface and said lower surface.

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